

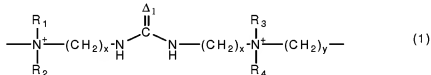
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

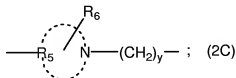
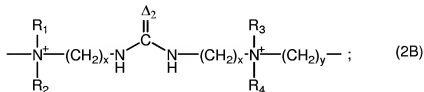
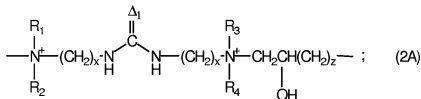
Listing of Claims:

Claim 1 (Currently amended): A zinc or zinc alloy electroplating bath comprising:

zinc ions and a brightening agent, the brightening agent comprising at least one polyamine or a mixture of polyamines, the at least one polyamine or mixture of polyamines including a first repeating unit that has the general formula:



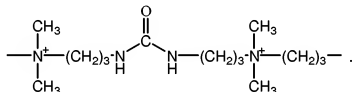
and a second repeating unit selected from the group consisting of



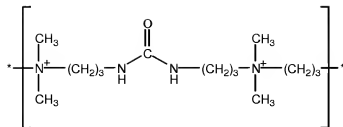
and combinations thereof;

where Δ_1 is O, N, or S; Δ_2 is O, N, or S, and $\Delta_2 \neq \Delta_1$; x is an integer from 2 to 6; y is an integer from 1 to 6; z is an integer from 1 to 6; R_1 , R_2 , R_3 , and R_4 , which is the same or different, is methyl, ethyl, isopropyl, n-propyl, hydroxyethyl, or $-\text{CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2)_m\text{OH}$; m is a number between 0-6; R_5 represents a group of atoms necessary to complete a heterocyclic compound having a five or six membered ring containing at least two nitrogen atoms; and R_6 is nothing or an alkyl group, wherein the first repeating unit and the second repeating unit are in the same polymer chain.

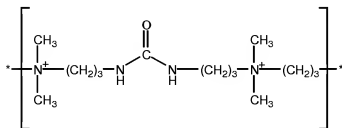
Claim 2 (Original): The zinc or zinc alloy electroplating bath of claim 1, the first repeating unit having the following formula:



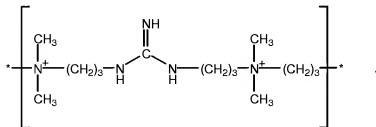
Claim 3 (Withdrawn): The zinc or zinc alloy plating bath of claim 1, the brightening agent comprising a mixture of polyamines, the mixture of polyamines including a first polyamine of the general formula:



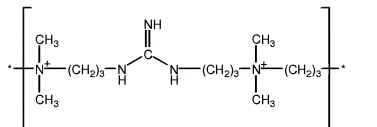
and a second polyamine of the general formula:



Claim 4 (Withdrawn): The zinc or zinc alloy plating bath of claim 1, the brightening agent comprising a mixture of polyamines, the mixture of polyamines including a first polyamine of the general formula:

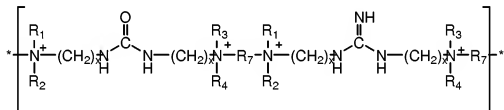


and a second polyamine of the general formula:



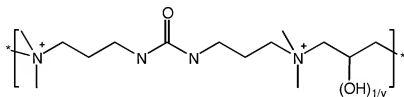
Claim 5 (Cancelled):

Claim 6 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 1,
the polyamine having the following general formula:



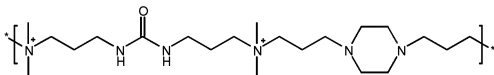
where R₇ is an alkylene group.

Claim 7 (Original): The zinc or zinc alloy electroplating bath of claim 1, the polyamine having the following general formula:

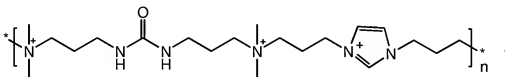


where v is an integer greater than 1.

Claim 8 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 1, the polyamine having the following general formula:

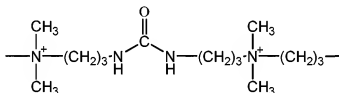


Claim 9 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 1, the polyamine having the following general formula:

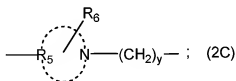
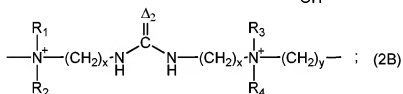
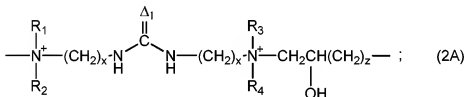


Claim 10 (Withdrawn-currently amended): A zinc or zinc alloy electroplating bath comprising:

zinc ions and a brightening agent, the brightening agent comprising at least one polyamine or a mixture of polyamines, the at least one polyamine or mixture of polyamines including a first repeating unit that has the general formula:



and a second repeating unit selected from the group consisting of:

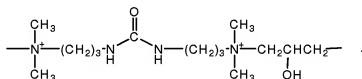


and combinations thereof;

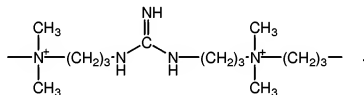
where Δ_1 is O, N, or S; Δ_2 is O, N, or S, and $\Delta_2 \neq \Delta_1$; x is an integer from 2 to 6; y is an integer from 1 to 6; z is an integer from 1 to 6; R₁, R₂, R₃, and R₄, which is the same or different, is methyl, ethyl, isopropyl, n-propyl, hydroxyethyl, or

$-\text{CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2)_m\text{OH}$; m is a number between 0-6; R_5 represents a group of atoms necessary to complete a heterocyclic compound having a five or six membered ring containing at least two nitrogen atoms, and R_6 is nothing or an alkyl group, wherein the first repeating unit and the second repeating unit are in the same polymer chain.

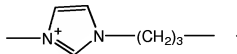
Claim 11 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 10, the second repeating unit comprising:



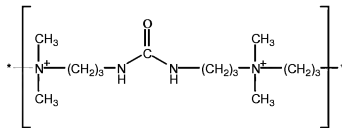
Claim 12 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 10, the second repeating unit comprising:



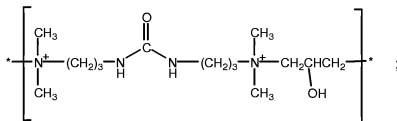
Claim 13 (Withdrawn): The zinc or zinc alloy electroplating bath of claim 10, the second repeating unit comprising:



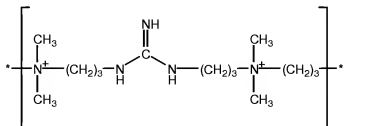
Claim 14 (Withdrawn): The zinc or zinc alloy plating bath of claim 10, the brightening agent comprising a mixture of polyamines, the mixture of polyamines including a first polyamine of the general formula:



and a second polyamine selected from the group consisting of:

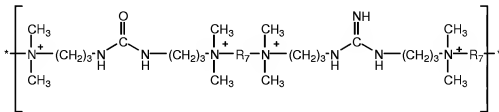


and



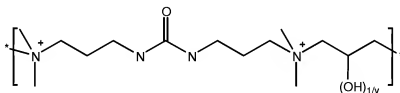
Claim 15 (Cancelled)

the polyamine having the following general formula:



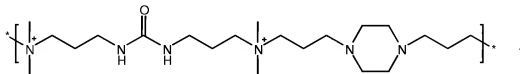
where R₇ is an alkylene group.

the polyamine having the following general formula:

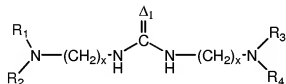


where v is an integer greater than 1.

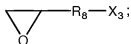
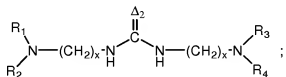
the polyamine having the following general formula:



Claim 19 (Withdrawn): A brightening agent for an alkaline zinc or zinc alloy electroplating bath, the brightening agent comprising a copolymer of a first monomer having the following formula:



and a second monomer comprising at least two of the following compounds selected from the group consisting of:



where Δ_1 is O, N, or S; Δ_2 is O, N, or S, and $\Delta_2 \neq \Delta_1$; x is an integer from 2 to 6; R_1 , R_2 , R_3 , and R_4 , which is the same or different, is methyl, ethyl, isopropyl, n-propyl, hydroxyethyl, or $-CH_2CH_2(OCH_2CH_2)_mOH$; m is a number between 0-6; R_5 represents a group of atoms necessary to complete a heterocyclic compound having

a five or six membered ring containing at least two nitrogen atoms; R_6 is nothing or an alkyl group; R_7 and R_8 , which may be the same or different, is an alkylene group; and X_1 , X_2 , and X_3 , which is the same or different, is a halogen.